



Manufacturers' Shipments, Inventories, and Orders

April 1971

U.S. DEPARTMENT OF COMMERCE / Bureau of the Census



FOR RELEASE: June 2, 1971

New orders for manufactured products in April at \$57.2 billion decreased 1.9 percent or \$1.1 billion from \$58.3 billion in March (revised upward from \$57.9 billion), after seasonal adjustment. Shipments decreased \$100 million or 0.2 percent to \$58.5 billion from \$58.6 billion (revised upward from \$58.3 billion) in March. Unfilled orders declined \$1.2 billion to \$82.5 billion at the end of April. Manufacturers' inventories increased \$100 million to \$99.5 billion from \$99.4 billion at the end of March. The inventories to shipments ratio remained unchanged at 1.70; April was the first month since November in which a decline was not registered.

For the three months ending with April, the average change in new orders represents a decrease of 0.1 percent compared with an increase of 1.9 percent for the three months ending with January and a decrease of 1.7 percent for the three months ending with October.

NEW ORDERS

New orders for durable goods at \$30.6 billion decreased \$1.2 billion or 3.7 percent from \$31.8 billion in March. New orders for transportation equipment declined \$700 million largely reflecting decreases in motor vehicle industry shipments¹ as well as declines in aircraft orders. New orders for the machinery industries declined \$300 million to \$9.3 billion and primary metals decreased \$200 million to \$5.0 billion.

Among the supplementary series, new orders for producers' capital goods declined \$400 million to \$6.3 billion. New orders for defense products declined \$100 million to \$1.5 billion.

¹It should be noted that new orders for the motor vehicles industry are not reported as such but are estimated as equal to shipments. Hence a sizeable decrease in shipments is necessarily accompanied by a similar decrease in new orders.

SERIES: M3-1(71)-4

Chart 1 - Manufacturers' New Orders (Seasonally Adjusted)

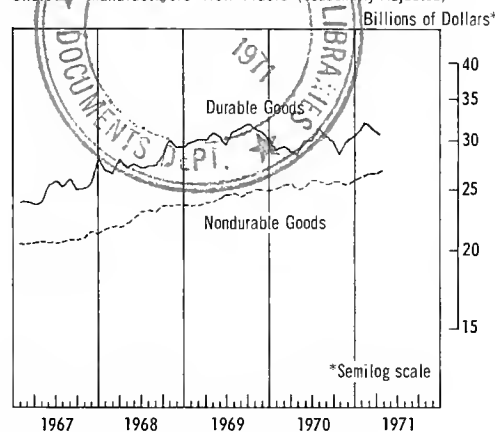
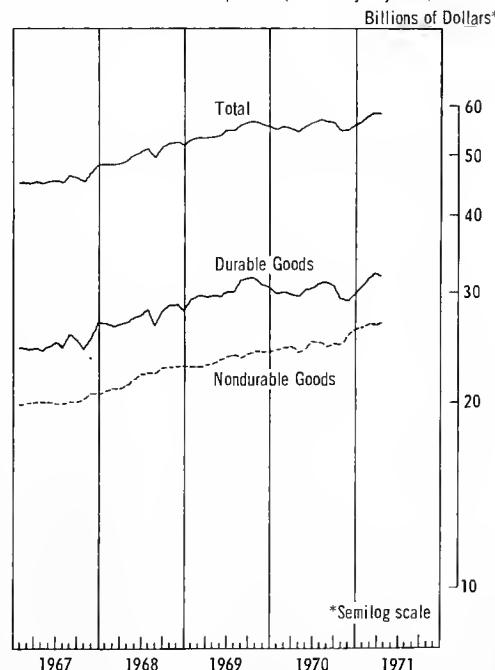


Chart 2 - Manufacturers' Shipments (Seasonally Adjusted)



SHIPMENTS

Shipments of durable goods decreased \$300 million or 1.0 percent to \$31.8 billion in April. Shipments of transportation equipment decreased \$700 million with the decrease split between the motor vehicle and aerospace industries. Primary metals shipments increased \$400 million to \$5.4 billion. Shipments of nondurable goods increased \$200 million to \$26.7 billion as increases in chemicals and printing and publishing were partially offset by decreases in foods and textiles.

UNFILLED ORDERS

Unfilled orders for durable goods declined \$1.2 billion to \$79.4 billion at the end of April. Unfilled orders for transportation equipment declined \$500 million to \$27.5 billion influenced primarily by the aerospace industry. Primary metals unfilled orders declined \$400 million to \$7.6 billion and the machinery industries declined \$300 million to \$28.4 billion at the end of April.

INVENTORIES

Inventories in the durable goods industries increased \$200 million to \$65.5 billion while those in the nondurable goods industries decreased \$100 million to \$34.0 billion. The increase in durable goods inventories was due primarily to the motor vehicle industry. At the all manufacturing level, materials and supplies increased \$300 million, work in process decreased \$100 million, and finished goods remained unchanged from March.

The figures on the durable goods industries in this report supersede those issued earlier in the advance report on durable goods. The advance report is based on a tabulation of early reports and is limited to statistics on shipments, new orders, and unfilled orders for a few broad industries categories. The present report is based on more complete reporting, but the estimates are also considered preliminary. Final figures will appear as historical data in the report to be published for next month. The advance report on durable goods for May is scheduled for release on June 21, 1971 and the full report is scheduled for release on June 30.

For an explanation of terms used in this report see appendix following table 5.

Inquiries concerning these figures should be addressed to the U.S. Department of Commerce, Bureau of the Census, Industry Division, Washington, D.C. 20233.

Chart 3 – Manufacturers' Unfilled Orders (Seasonally Adjusted)

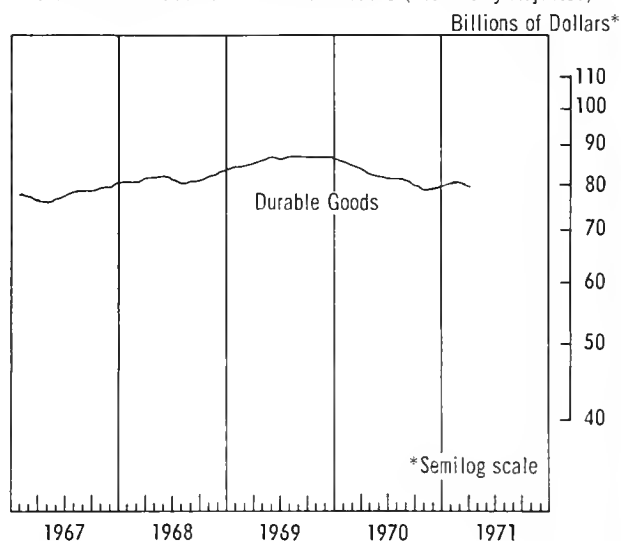


Chart 4 – Total Inventory (Seasonally Adjusted)

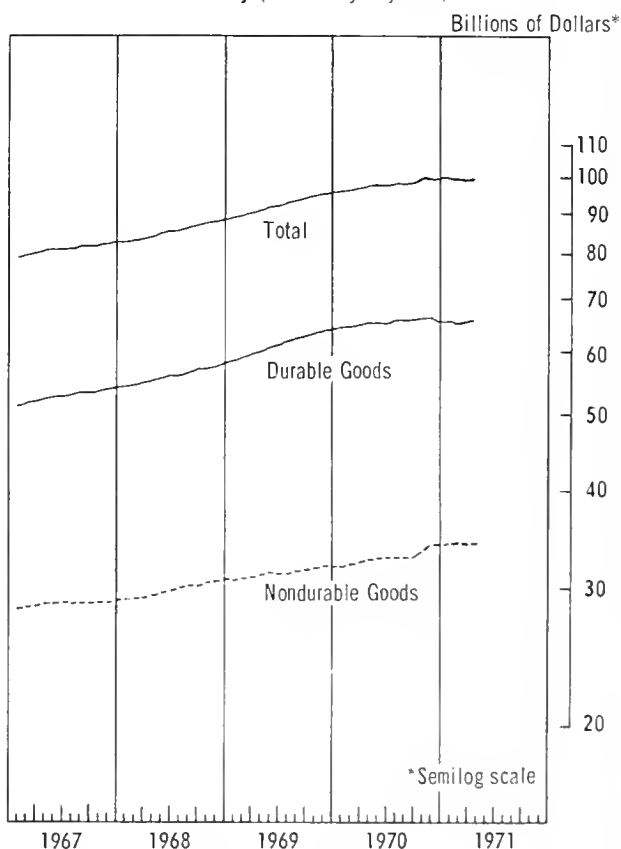


Table 1.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, BY INDUSTRY GROUP

(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment ¹			Seasonally adjusted			Without seasonal adjustment		
	Apr. 1971 ^P	Mar. 1971 ^r	Feb. 1971	Apr. 1971 ^P	Mar. 1971 ^r	Apr. 1970	Apr. 1971 ^P	Mar. 1971 ^r	Feb. 1971	Apr. 1971 ^P	Mar. 1971 ^r	Apr. 1970
	Shipments						Total inventories					
All manufacturing industries:												
Total.....	58,463	58,578	57,803	59,737	60,739	55,646	99,542	99,416	99,520	100,335	99,950	98,588
Total, excluding transportation.....	50,671	50,227	49,695	51,634	51,778	47,812	84,758	84,787	84,828	85,464	85,225	83,053
Durable goods industries, total.....	31,759	32,093	31,352	32,768	33,790	30,499	65,536	65,352	65,347	66,123	65,706	65,285
Stone, clay, and glass products.....	1,708	1,668	1,614	1,743	1,625	1,471	2,649	2,652	2,653	2,742	2,746	2,665
Primary metals, total.....	5,436	5,049	4,805	5,828	5,384	4,724	9,135	9,234	9,210	9,046	9,221	8,465
Blast furnaces, steel mills.....	2,656	2,363	2,308	2,924	2,585	1,960	4,942	4,987	4,958	4,818	4,942	4,457
All other primary metals.....	2,780	2,686	2,497	2,904	2,799	2,764	4,193	4,247	4,252	4,228	4,279	4,008
Fabricated metal products, total.....	3,163	3,228	3,189	3,229	3,284	3,096	7,036	7,033	6,969	7,183	7,037	6,843
Metal cans, barrels, and drums.....	284	257	356	286	251	294	726	759	768	776	741	756
Machinery, except electrical, total.....	5,509	5,680	5,507	5,775	6,134	5,593	13,966	13,968	14,011	14,118	14,109	13,724
Engines and turbines.....	464	580	430	472	666	419	976	971	1,005	990	975	958
Farm machinery and equipment.....	506	515	504	620	632	542	989	995	989	1,008	1,040	1,007
Construction, mining, and material handling equipment.....	731	766	791	795	791	750	2,498	2,471	2,456	2,536	2,523	2,362
Metalworking machinery.....	321	333	320	313	364	322	1,125	1,112	1,079	1,131	1,105	1,151
General industrial machinery.....	524	553	533	554	521	562	1,196	1,190	1,172	1,205	1,200	1,175
Electrical machinery, total.....	4,062	3,963	4,017	3,950	4,122	3,747	9,519	9,487	9,431	9,652	9,477	9,723
Electrical transmission and distribution equipment and industrial apparatus.....	799	797	813	819	837	719	2,175	2,132	2,118	2,184	2,137	2,014
Household appliances, including radio and TV.....	907	839	792	759	852	668	2,041	2,032	1,980	2,111	2,008	2,185
Communication equipment.....	1,192	1,125	1,181	1,223	1,183	1,181	2,719	2,738	2,730	2,741	2,752	2,863
Transportation equipment, total.....	7,640	8,351	8,108	7,955	8,961	7,834	14,784	14,629	14,692	14,871	14,725	15,535
Motor vehicles and parts.....	4,444	4,789	4,762	4,707	5,250	4,033	4,195	4,095	4,080	4,161	4,108	4,082
Aircraft, missiles, and parts.....	2,466	2,844	2,615	2,476	2,948	3,116	8,411	8,414	8,512	8,476	8,454	9,418
Instruments and related products.....	1,128	1,082	1,115	1,094	1,099	1,112	2,612	2,619	2,621	2,638	2,619	2,663
All other durable goods industries.....	3,113	3,072	2,997	3,194	3,181	2,922	5,835	5,730	5,760	5,873	5,772	5,667
Nondurable goods industries, total.....	26,704	26,485	26,451	26,969	26,949	25,147	34,006	34,064	34,173	34,212	34,244	33,303
Food and kindred products, total.....	9,081	9,141	8,960	8,881	9,101	8,396	7,797	7,829	7,857	7,639	7,719	7,424
Meat products.....	1,729	1,629	1,669	1,669	1,608	1,726	803	795	787	828	822	887
Tobacco products.....	478	479	471	462	463	439	2,192	2,195	2,239	2,243	2,300	2,215
Textile mill products.....	1,884	1,989	1,919	1,868	2,030	1,729	3,250	3,281	3,262	3,339	3,351	3,521
Paper and allied products, total.....	2,461	2,481	2,453	2,483	2,559	2,347	2,791	2,766	2,791	2,826	2,772	2,747
Pulp, paper, etc.....	1,100	1,108	1,098	1,114	1,153	1,018	1,099	1,101	1,108	1,111	1,106	1,067
Chemicals and allied products, total.....	4,401	4,229	4,372	4,743	4,374	4,310	7,094	7,166	7,173	7,202	7,285	6,808
Industrial chemicals, except pigments.....	1,493	1,459	1,486	1,616	1,520	1,463	2,215	2,240	2,284	2,241	2,292	2,241
Petroleum and coal products.....	2,267	2,261	2,317	2,245	2,220	2,118	2,443	2,453	2,490	2,420	2,434	2,350
Rubber and plastics products, n.e.c.....	1,564	1,540	1,531	1,647	1,606	1,519	1,954	1,957	1,940	1,990	1,984	1,984
All other nondurable goods industries.....	4,568	4,365	4,428	4,640	4,596	4,289	6,485	6,417	6,421	6,553	6,399	6,254
	New orders						Unfilled orders					
All manufacturing industries:												
Total.....	57,244	58,326	58,288	58,698	60,630	54,802	82,526	83,748	83,994	83,400	84,435	86,100
Total, excluding transportation.....	49,913	50,462	49,689	50,949	52,130	48,014	55,004	55,763	55,523	55,970	56,651	56,844
Durable goods industries, total.....	30,591	31,773	31,867	31,743	33,620	29,594	79,357	80,526	80,843	80,208	81,226	83,086
Primary metals, total.....	4,995	5,184	5,100	5,242	5,621	4,999	7,589	8,028	7,894	8,392	8,978	7,593
Blast furnaces, steel mills.....	2,371	2,442	2,543	2,541	2,792	2,223	4,533	4,818	4,739	5,254	5,637	3,815
Fabricated metal products.....	3,119	3,231	3,075	3,303	3,317	3,121	10,620	10,664	10,661	10,834	10,760	10,550
Machinery, except electrical, total.....	5,322	5,703	5,462	5,644	6,182	5,602	15,447	15,633	15,610	15,549	15,678	16,834
Engines and turbines.....	406	830	438	399	902	402	4,963	5,021	4,770	4,916	4,990	4,823
Construction, mining, and material handling equipment.....	732	733	757	814	791	788	2,088	2,087	2,120	2,157	2,137	2,286
Metalworking machinery.....	300	290	281	300	322	274	1,068	1,088	1,131	1,067	1,080	1,534
General industrial machinery.....	532	568	564	582	596	559	1,645	1,637	1,590	1,673	1,645	1,656
Electrical machinery, total.....	3,987	3,945	3,958	3,893	4,050	3,638	12,992	13,067	13,084	12,828	12,882	13,364
Electrical transmission and distribution equipment and industrial apparatus.....	812	857	753	851	872	661	3,332	3,319	3,259	3,315	3,282	3,513
Household appliances, including radio and TV.....	883	883	802	738	861	645	548	572	527	509	530	551
Communication equipment.....	1,204	1,028	1,233	1,190	1,087	1,126	5,638	5,626	5,723	5,497	5,530	5,408
Transportation equipment, total.....	7,179	7,864	8,599	7,601	8,500	6,788	27,522	27,985	28,471	27,430	27,784	29,256
Aircraft, missiles, and parts.....	2,142	2,451	2,138	2,275	2,582	2,202	19,142	19,467	19,859	19,249	19,451	22,326
All other durable goods industries.....	5,989	5,846	5,673	6,060	5,950	5,446	5,187	5,149	5,123	5,175	5,144	5,489
Nondurable goods industries, total.....	26,653	26,553	26,421	26,955	27,010	25,208	3,169	3,222	3,151	3,192	3,209	3,014
Industries with unfilled orders.....	7,280	7,360	7,175	7,355	7,498	6,955	3,169	3,222	3,151	3,192	3,209	3,014
Industries without unfilled orders.....	19,373	19,193	19,246	19,600	19,512	18,253	-	-	-	-	-	-

- Represents zero. ^PPreliminary. ^rRevised.¹Adjusted for trading-day and calendar-month variations.

Table 2.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, FOR MARKET CATEGORIES AND SUPPLEMENTARY SERIES
(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment ¹			Seasonally adjusted			Without seasonal adjustment		
	Apr. 1971 ^P	Mar. 1971 ^r	Feb. 1971	Apr. 1971 ^P	Mar. 1971 ^r	Apr. 1970	Apr. 1971 ^P	Mar. 1971 ^r	Feb. 1971	Apr. 1971 ^P	Mar. 1971 ^r	Apr. 1970
	Shipments						Total inventories					
All manufacturing industries, total..	58,463	58,578	57,803	59,737	60,739	55,646	99,542	99,416	99,520	100,335	99,950	98,588
Durable goods industries, total.....	31,759	32,093	31,352	32,768	33,790	30,499	65,536	65,352	65,347	66,123	65,706	65,285
Nondurable goods industries, total.....	26,704	26,485	26,451	26,969	26,949	25,147	34,006	34,064	34,173	34,212	34,244	33,303
Industry groups arranged by market categories:												
Home goods and apparel.....	4,997	4,885	4,805	4,843	5,173	4,303	10,133	10,077	10,044	10,377	10,079	10,173
Consumer staples.....	11,646	11,586	11,432	11,465	11,558	10,751	12,972	12,952	12,994	12,875	12,936	12,469
Equipment and defense products, except automotive.....	9,123	9,515	9,218	9,429	10,098	9,552	26,048	25,957	26,086	26,327	26,176	26,461
Automotive equipment.....	4,997	5,350	5,331	5,318	5,822	4,717	5,303	5,195	5,188	5,328	5,282	5,272
Construction materials, supplies, and intermediate products.....	5,006	4,947	4,818	5,186	4,923	4,478	8,365	8,398	8,355	8,545	8,557	8,208
Other materials and supplies and intermediate products.....	22,694	22,295	22,199	23,496	23,165	21,845	36,721	36,837	36,853	36,883	36,920	36,005
Supplementary series: ²												
Household durable goods industries.....	2,318	2,252	2,124	2,180	2,323	1,950	5,145	5,095	5,052	5,256	5,092	5,281
Producers' capital goods industries.....	6,611	6,785	6,700	6,805	7,205	6,426	17,699	17,577	17,598	17,880	17,680	17,088
Defense products industries (old series).....	3,880	4,224	4,048	3,932	4,401	4,571	11,910	11,879	11,998	12,003	11,944	13,042
Defense products (new series)*.....	1,833	1,887	1,898	1,860	1,970	2,038	6,108	6,008	6,020	6,166	6,041	7,425
	New orders						Unfilled orders					
All manufacturing industries, total..	57,244	58,326	58,288	58,698	60,630	54,802	82,526	83,748	83,994	83,400	84,435	86,100
Durable goods industries, total.....	30,591	31,773	31,867	31,743	33,620	29,594	79,357	80,526	80,843	80,208	81,226	83,086
Nondurable goods industries, total.....	26,653	26,553	26,421	26,955	27,010	25,208	3,169	3,222	3,151	3,192	3,209	3,014
Industry groups arranged by market categories:												
Home goods and apparel.....	5,013	4,926	4,799	4,862	5,180	4,285	1,960	1,935	1,870	1,882	1,864	1,906
Consumer staples.....	11,656	11,597	11,436	11,464	11,560	10,743						
Equipment and defense products, except automotive.....	8,704	9,089	9,850	9,144	9,755	8,699	45,229	45,669	46,069	45,006	45,340	46,266
Automotive equipment.....	4,976	5,375	5,352	5,266	5,812	4,663						
Construction materials, supplies, and intermediate products.....	4,995	4,949	4,685	5,298	5,000	4,532	10,545	10,557	10,555	10,798	10,686	10,628
Other materials and supplies and intermediate products.....	21,900	22,380	22,165	22,664	23,323	21,880	24,792	25,587	25,500	25,714	26,545	27,300
Supplementary series: ²												
Household durable goods industries.....	2,333	2,296	2,113	2,180	2,323	1,901	1,570	1,555	1,509	1,498	1,496	1,529
Producers' capital goods industries.....	6,325	6,767	7,518	6,605	7,212	6,254	24,790	25,075	25,093	24,671	24,866	24,566
Defense products industries (old series).....	3,572	3,724	3,618	3,698	3,923	3,573	25,230	25,539	26,039	25,185	25,420	28,202
Defense products (new series)*.....	1,488	1,580	2,357	1,573	1,682	1,473	19,575	19,920	20,227	19,451	19,738	19,254

*During 1968 manufacturers in ordnance, communications, aircraft and aircraft parts, and ship building industries began to provide aggregate figures on shipments, orders, and total inventories of work performed for the Department of Defense. The results of these reports are included in these new defense series. Since there are no historical data available to develop separate seasonal factors for these reporters, the data have been seasonally adjusted using the factors of these industries. ^PPreliminary. ^rRevised. ¹Shipments and new orders adjusted for trading-day and calendar-month variations; unfilled orders and inventories as of end of month. The supplementary series are regroupings of the separate industry categories as follows:

Household durable goods industries - Household furniture; kitchen articles and pottery; cutlery, handtools, and hardware; household appliances; ophthalmic goods, watches, and clocks; and miscellaneous personal goods.

Producers' capital goods (formerly machinery and equipment) industries - Machinery, except electrical (excluding farm machinery and equipment and machine shops), electrical machinery (excluding household appliances, communication equipment and electronic components), shipbuilding and repairing, and railroad and street car equipment.

Defense products industries (old series) - Based on reports for companies classified in the communication equipment, complete aircraft, aircraft parts, and ordnance industries. (Thus, this series includes significant amounts of nondefense work in these industries and omits defense work performed in the ship building industry.)

Defense products (new series) - Based on separate reports on defense work filed by large defense contractors in the following industries: ordnance, communications, complete aircraft, aircraft parts, and ship building. Thus, it differs from the old series in that it includes defense activity in ship building and excludes nondefense work in ordnance, communications, complete aircraft, and aircraft parts. The data are comparable to those published annually in the MA-175, Shipments of Defense-Oriented Industries, for the specified industries.

Table 3.--MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS MONTH-TO-MONTH AND LONG TERM PERCENT CHANGES

(Based on seasonally adjusted data)

Item and industry group	Month-to-month			Average monthly rates of change				Average, 1965-1970	
	Mar.- Apr. 1971	Feb.- Mar. 1971	Jan.- Feb. 1971	3 months			12 months	Average rise	Average decline
				Jan.- Apr. 1971	Oct. 1970- Jan. 1971	July- Oct. 1970	Apr. 1970- Apr. 1971		
Shipments:									
All manufacturing industries,.....	-0.2	+1.3	+2.3	+1.1	+0.9	-1.2	+0.6	+1.3	-1.1
Durable goods industries, total,.....	-1.0	+2.4	+2.6	+1.3	+1.3	-2.1	+0.6	+2.0	-1.7
Nondurable goods industries, total,....	+0.8	+0.1	+1.9	+0.9	+0.5	-0.2	+0.6	+1.0	-0.6
Total inventories:									
All manufacturing industries,.....	+0.1	-0.1	-0.3	-0.1	+0.1	+0.4	+0.2	+0.7	-0.3
New orders:									
All manufacturing industries,.....	-1.9	+0.1	+1.6	-0.1	+1.9	-1.7	+0.6	+1.9	-1.3
Durable goods industries, total,.....	-3.7	-0.3	+1.5	-0.8	+3.3	-3.1	+0.7	+3.1	-2.3
Nondurable goods industries, total,....	+0.4	+0.5	+1.7	+0.9	+0.4	0.0	+0.6	+1.0	-0.7
Unfilled orders:									
Durable goods industries, total,.....	-1.5	-0.4	+0.6	-0.4	+0.7	-1.1	-0.3	+1.1	-0.7

Table 4.--RATIO OF MANUFACTURERS' INVENTORIES TO SHIPMENTS AND UNFILLED ORDERS TO SHIPMENTS, BY INDUSTRY GROUP

(Based on seasonally adjusted data)

Industry group	Inventories - shipments ratio				Unfilled orders - shipments ratio ¹ (months' backlog)			
	Apr. 1971 ^P	Mar. 1971 ^R	Feb. 1971	Apr. 1970	Apr. 1971 ^P	Mar. 1971 ^R	Feb. 1971	Apr. 1970
All manufacturing industries, total,.....	1.70	1.70	1.72	1.79	2.31	2.34	2.47	2.53
Durable goods industries, total,.....	2.06	2.04	2.08	2.18	2.79	2.82	3.02	3.07
Stone, clay, and glass products,.....	1.55	1.59	1.64	1.78	(NA)	(NA)	(NA)	(NA)
Primary metals,.....	1.68	1.83	1.92	1.93	1.40	1.59	1.64	1.58
Fabricated metals,.....	2.22	2.18	2.19	2.21	3.69	3.59	3.76	3.78
Machinery, except electrical,.....	2.54	2.46	2.54	2.54	2.80	2.75	2.83	3.12
Electrical machinery,.....	2.34	2.39	2.35	2.50	3.20	3.30	3.26	3.53
Transportation equipment,.....	1.94	1.75	1.81	2.05	5.71	5.30	5.73	5.59
Instruments and related products,.....	2.32	2.42	2.35	2.31	(NA)	(NA)	(NA)	(NA)
Nondurable goods industries, total,.....	1.27	1.29	1.29	1.33	0.43	0.44	0.44	0.44
Food and kindred products,.....	0.87	0.86	0.88	0.88	(X)	(X)	(X)	(X)
Tobacco products,.....	4.59	4.58	4.75	4.77	(X)	(X)	(X)	(X)
Textile mill products,.....	1.73	1.65	1.70	1.97	(NA)	(NA)	(NA)	(NA)
Paper and allied products,.....	1.13	1.11	1.14	1.17	(NA)	(NA)	(NA)	(NA)
Chemicals and allied products,.....	1.61	1.69	1.64	1.68	(X)	(X)	(X)	(X)
Petroleum and coal products,.....	1.08	1.08	1.07	1.11	(X)	(X)	(X)	(X)
Rubber and plastics products, n.e.c.,.....	1.25	1.27	1.27	1.35	(X)	(X)	(X)	(X)

(NA) Not available. ^PPreliminary. ^RRevised. (X) Not applicable.¹Excludes the following industries with no unfilled orders: Wooden containers; glass containers; metal cans, barrels and drums; motor vehicle assembly operations; foods and related products; tobacco; apparel and related products; chemicals; petroleum and coal products; and rubber and plastics products, n.e.c.

Table 5.--VALUE OF MANUFACTURERS' INVENTORIES, BY STAGE OF FABRICATION, BY INDUSTRY GROUP

(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment			Seasonally adjusted			Without seasonal adjustment		
	Apr. 1971 ^p	Mar. 1971 ^r	Feb. 1971	Apr. 1971 ^p	Mar. 1971 ^r	Apr. 1970	Apr. 1971 ^p	Mar. 1971 ^r	Feb. 1971	Apr. 1971 ^p	Mar. 1971 ^r	Apr. 1970
	Total						Materials and supplies					
All manufacturing industries, total..	99,542	99,416	99,520	100,335	99,950	98,588	30,361	30,070	30,188	30,236	29,975	29,410
Durable goods industries, total.....	65,536	65,352	65,347	66,123	65,706	65,285	18,175	17,863	17,877	17,959	17,610	17,366
Stone, clay, and glass products.....	2,649	2,652	2,653	2,742	2,746	2,665	869	845	844	867	847	821
Primary metals.....	9,135	9,234	9,210	9,046	9,221	8,465	3,266	3,225	3,230	3,073	3,046	2,850
Machinery (electrical and nonelectrical).	23,485	23,455	23,442	23,770	23,586	23,447	5,745	5,765	5,774	5,741	5,730	5,563
Transportation equipment.....	14,784	14,629	14,692	14,871	14,725	15,535	3,143	3,001	3,045	3,140	3,022	3,114
All other durable goods industries.....	15,483	15,382	15,350	15,694	15,428	15,173	5,152	5,027	4,984	5,138	4,965	5,018
Nondurable goods industries, total.....	34,006	34,064	34,173	34,212	34,244	33,303	12,186	12,207	12,311	12,277	12,365	12,044
Chemicals and allied products.....	7,094	7,166	7,173	7,202	7,285	6,808	2,377	2,416	2,378	2,392	2,415	2,278
Petroleum and coal products.....	2,443	2,453	2,490	2,420	2,434	2,350	546	547	593	560	555	540
Rubber and plastics products, n.e.c.....	1,954	1,957	1,940	1,990	1,984	1,984	617	620	622	603	597	597
All other nondurable goods industries....	22,515	22,488	22,570	22,600	22,541	22,161	8,646	8,624	8,718	8,722	8,798	8,629
	Work in process						Finished goods					
All manufacturing industries, total..	34,421	34,557	34,696	34,700	34,793	35,604	34,760	34,789	34,636	35,399	35,182	33,574
Durable goods industries, total.....	29,569	29,645	29,747	29,858	29,910	30,620	17,792	17,844	17,723	18,306	18,186	17,299
Stone, clay, and glass products.....	369	391	392	402	425	418	1,411	1,416	1,417	1,473	1,474	1,426
Primary metals.....	2,961	3,036	3,094	2,975	3,090	2,907	2,908	2,973	2,886	2,998	3,085	2,708
Machinery (electrical and nonelectrical).	10,648	10,632	10,655	10,752	10,725	11,059	7,092	7,058	7,013	7,277	7,131	6,825
Transportation equipment.....	10,188	10,168	10,163	10,259	10,220	10,859	1,453	1,460	1,484	1,472	1,483	1,562
All other durable goods industries.....	5,403	5,418	5,443	5,470	5,450	5,377	4,928	4,937	4,923	5,086	5,013	4,778
Nondurable goods industries, total.....	4,852	4,912	4,949	4,842	4,883	4,984	16,968	16,945	16,913	17,093	16,996	16,275
Chemicals and allied products.....	923	902	938	921	905	878	3,794	3,848	3,857	3,889	3,965	3,652
Petroleum and coal products.....	411	495	514	406	492	541	1,486	1,411	1,383	1,454	1,387	1,269
Rubber and plastics products, n.e.c.....	307	316	311	305	311	312	1,030	1,021	1,007	1,082	1,076	1,075
All other nondurable goods industries....	3,211	3,199	3,186	3,210	3,175	3,253	10,658	10,665	10,666	10,668	10,568	10,279

^pPreliminary.
^rRevised.

Appendix

The following is a description of the survey and definitions used. These are provided to clarify the meaning of the items involved and do not represent any revisions from those definitions previously employed.

DESCRIPTION OF THE SURVEY

The Manufacturers' Shipments, Inventories, and Orders survey provides monthly figures that are comparable to the annual totals published each year in the annual survey of manufactures (ASM). The ASM is based on a sample of approximately 60,000 manufacturing establishments drawn from the 5-year census universe of about 310,000 establishments. In the ASM, each manufacturing establishment provides data on employment, payrolls, shipments, cost of materials, capital expenditures, and inventories as well as other selected items. The establishments do not provide information on unfilled orders or new orders. Since the ASM is establishment based, it provides data for each of the 425 manufacturing industries in the Standard Industrial Classification System (SIC) and area data for industry groups.

The monthly survey M3-1 does not provide information at the complete SIC industry detail because of the smaller size of the reporting panel and the fact that most companies cannot provide shipments, inventories, and orders data monthly for individual establishments.

The monthly reporting panel consists of approximately 5,000 reporting units and includes virtually all companies with 1,000 or more employees and a sample of the smaller ones. The reporting unit typically comprises the entire operations of a company although many of the larger diversified companies file separate divisional type reports for their operations in different industries.

Most of the reporting units include mixed industry activity even within the broad industry categories of the monthly survey. The survey methodology assumes that the month-to-month changes of the reporting units classified in each industry category represent effectively the month-to-month movements of the establishments in the SIC industries which make up the category. Thus, the monthly reports are used to update the ASM estimates by using a link relative of matched companies in each industry.

EXPLANATION OF TERMS

Value of Shipments--Shipments in the monthly survey are equivalent to value of shipments as reported in the ASM which are received or receivable net selling values, f.o.b. plant, after discounts and allowances and excluding freight charges and excise taxes. Included in shipments are the value of all products sold, transferred to other plants of the same company, or shipped on consignment.

Shipments also include receipts of establishments in the industry for contract work performed for others, resales, receipts for miscellaneous activities such as the sale of scrap and refuse; value of installation and repair work performed by employees of the plant; and value of research and development performed at the plant. In the aircraft industry and shipbuilding, the value of work done in a given year varies considerably from the value of shipments because of the long lead time between the input of the materials and labor and the shipments of the completed aircraft or ship. In the annual survey, therefore, the value of work done during the year is requested rather than the value of shipments.

The value of shipments figures developed from the ASM contain duplication at the all manufacturing and industry group levels since the products of some industries are used as materials by other industries within the industry group. With the exception of motor vehicles, it is not significant at the 4-digit SIC group level. Since the M3-1 industry categories typically are groupings of industries, this duplication is significant for the all manufacturing, durable goods and nondurable goods categories and the various market groups. The significance of the duplication within the specific M3-1 industry groups varies depending on the 4-digit industry composition of these groups. It is most pronounced in a few highly integrated industry areas such as primary metals and motor vehicles and parts.

Since most monthly reports are for the entire company or major divisions rather than establishments, the companies are requested to report net sales, i.e., total company billings after discounts and allowances. Companies which file divisional reports are requested to treat transfers from one division of the company to another as if they were net sales to outside customers. Although this

definition of shipments in the monthly reports differs from that used in the annual establishment reports, it is assumed that the month-to-month changes in company sales in the industry are representative of the month-to-month shipments of the establishments in the industry.

Inventories--End-of-month inventories in the monthly survey are identical in definition to the end-of-year inventories in the ASM. In the ASM, respondents are asked to report inventories of individual establishments at approximate current cost if feasible; otherwise, "at book values." Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the aggregate inventories for establishments in an industry is not precise. The figures on the change in inventories from one period to the next are of greater significance than the actual aggregates.

Inventories are reported by stage of fabrication: (a) finished goods; (b) work in process; and (c) materials, supplies, fuel, and other inventories. In using inventories by stage of fabrication at the all manufacturing and 2-digit industry levels as well as for the durable and non-durable goods sectors, it should be noted that a finished product of one industry may be a raw material for another industry at the next stage of fabrication. Insofar as the durable and nondurable goods sectors and also the 2-digit industry groups contain industries with successive stages of processing, the same type of commodity may be included under different inventory categories in the aggregate statistics.



New Orders Received and Unfilled Orders--

Orders as reported in the monthly survey are net of cancellations during the month. They include orders received during the period and also filled during the period as well as those orders received for future delivery. They also include the net sales value of contract change documents which increase or decrease the sales value of the unfilled orders to which they relate. Orders include only those supported by binding legal documents such as signed contracts, or letter contracts. In case of letter contracts the full amount of the sales value is included if the parties are in substantial agreement on the amount; otherwise, only the funds specifically authorized to be expended are included. The respondent is instructed to deduct the sales value of partial or complete cancellation of existing orders.

Unfilled orders include orders as defined above that have not yet passed through the sales account. Generally, unfilled orders at the end of the reporting period are equal to unfilled orders at the beginning of the period plus net new orders received less net sales.

While both new orders and unfilled orders are used in reviewing individual company reports for consistency, only unfilled orders are estimated directly in the tabulated totals. New orders are derived from the shipments plus net change in unfilled orders for each industry category. This procedure is followed for seasonally adjusted data as well as for the unadjusted data. Shipments and unfilled orders are seasonally adjusted independently. Seasonally adjusted new orders are derived from seasonally adjusted shipments and seasonally adjusted unfilled orders.